

POSITIONAL AWARENESS

Getting back to the airport during the check ride

I constantly hear of student pilots that do great on their check ride until the DE asks them to take them back to the airport. This is a demonstration of your positional awareness. If you can't demonstrate positional awareness on the check ride it is likely you will end up with a pink slip.

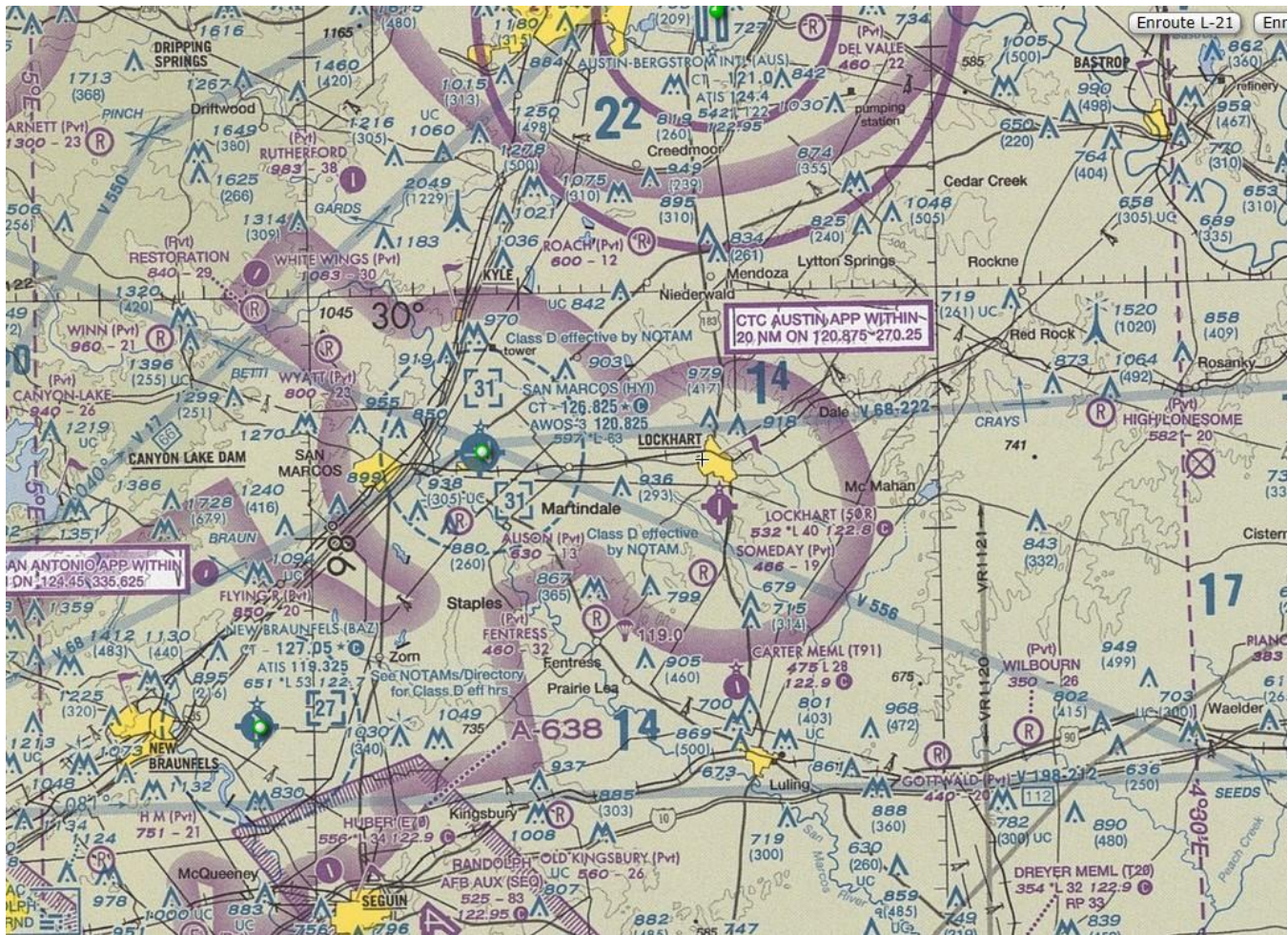
Positional awareness is best defined as always knowing where you are in relationship to a desired track, airport, or specified area. Here are some tips in preserving and re-obtaining positional awareness during the check ride as well as on other flights.

Start with a plan: An obvious question you may want to ask the DE before you even get into the airplane is where they plan to conduct the air work and takeoffs and landings. If you are at your home airport, he may even ask you for suggestions as many training schools have specified training areas and the landmarks and paths back to the airport are well known (or should be!) to you by now. Ask him/her to mark it on your sectional. Keep track of landmarks as you fly, and refer to your sectional as the flight progresses.

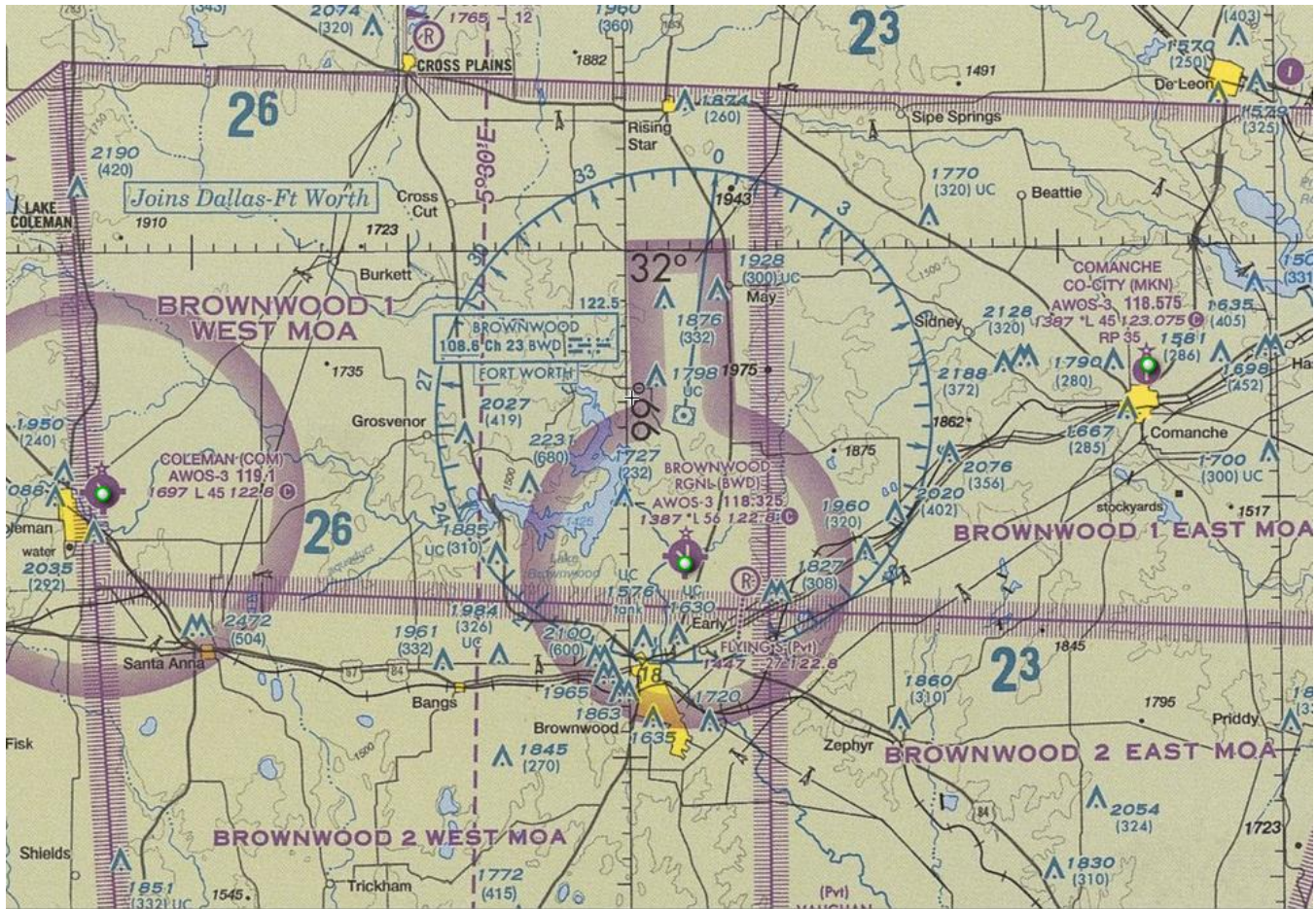
Keep track of your tracks: If your check ride begins with the first leg of a cross country flight plan (highly likely), the DE will likely terminate the cross country within a short period of time after they have examined your ability to perform skills associated with that cross country task. They will then either have you return to the airport or accomplish some air work. If you have kept track of your location while flying this cross country task, then mark this location on the sectional.

Keep track of last known location: They may have you do some takeoffs and landings at an airport that is located away from the home airport and then perform some air work. Again, keep track of the location and the direction you flew away from the last known location.

Preload your brain with return planning: In this example, assume you are flying at the San Marcos airport. There are two likely areas that can be used. Airspace to the east and to the west. Airspace to the north and south is going to be unusable due to San Antonio and Austin as well as some of the SUA around Randolph AFB. Airspace to the east has the added advantage of Lockhart airport that is very favored for training as well as the relatively flat terrain east of Lockhart. Airspace to the west of San Marcos is over rough terrain, but does have some airports that could be used for emergency landings. See snippet of sectional below – where would you conduct the air work? If it were me, I'd likely chose an area just to the east of Lockhart (50R). I'd also keep the VOR frequencies of SAT and CWK handy and know how to locate my position by means of finding my location from these two VORs. More on this later.

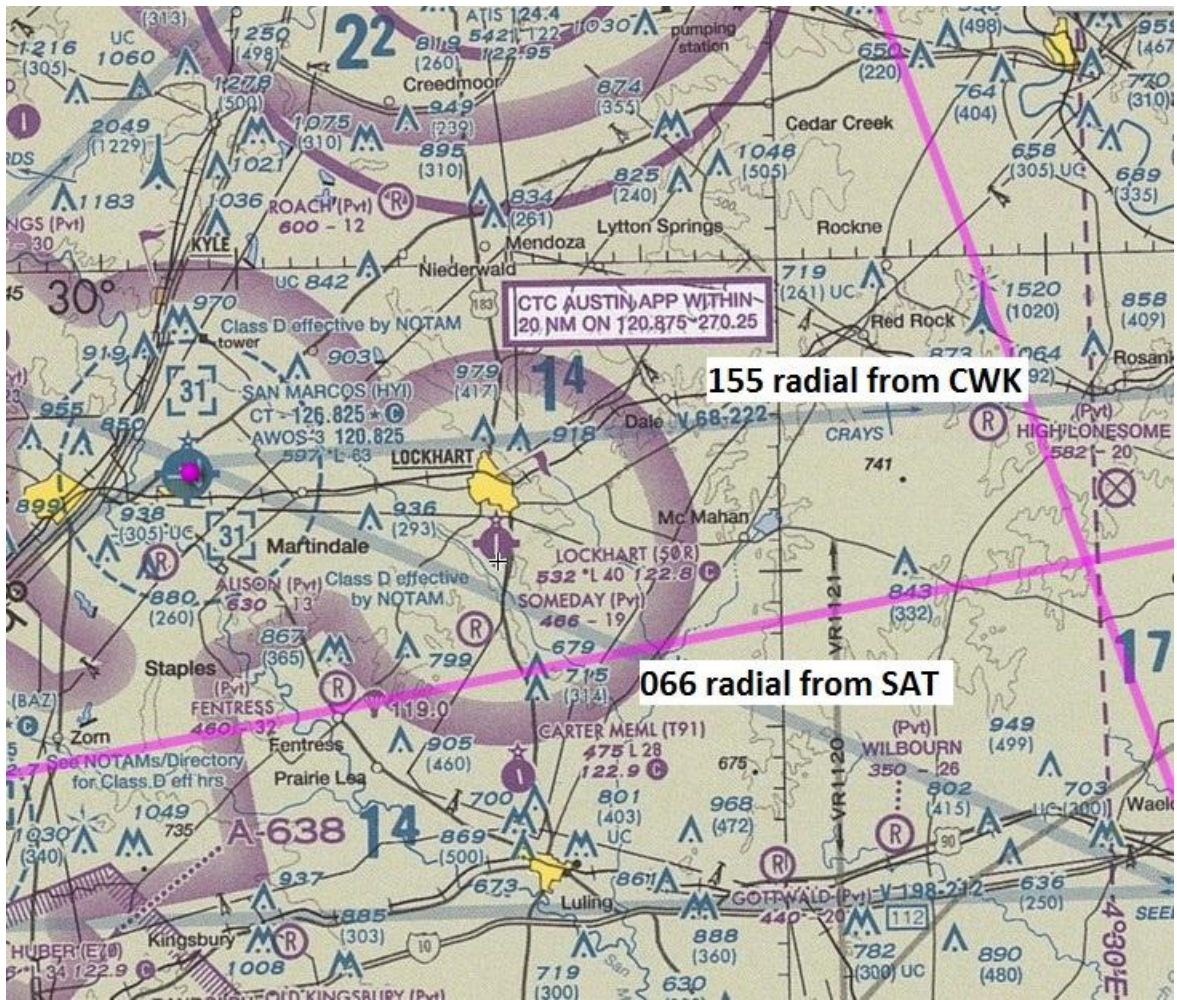


What if you are taking your check ride at Brownwood (BWD)? Look at the below snippet. All of the airspace around BWD is MOA – as part of your preparation you should have checked the altitudes and times these MOAs are active. That may give you a clue as to where the DE will ask you to fly. But most important is the fact that there is a VOR almost collocated at BWD as well as several other VORs close to Brownwood. You should practice determining what radial you are on and being able to navigate direct to the VOR. As you get close to the VOR, BWD airport should be easily visible, if not, you can always find highway 183 as it is very close to the VOR and then simply fly 183 South.



Use your GPS: Before your check ride, you should be highly proficient in entering an airport, VOR, NDB or waypoint into your GPS and obtaining a bearing and distance. Make sure you are very proficient in the GPS model you will be using in the particular airplane for your check ride. You might set this prior to departure, and as long as you are not required to reset the GPS, the CDI display should always show the distance and bearing to the desired location. If, after maneuvering, you wish to fly to that location, it should be a simple matter to hit Direct, Enter, Enter and fly the indicated track (assumes Garmin 430).

Use your VOR: If your airplane is not equipped with GPS, it must have an operable VOR so as to complete navigation tasks associated with it for the Private Pilot checkride. The best approach to helping you maintain positional awareness is to keep the closest VOR active in your NAV radio. At any time you can simply turn the OBS knob to get a From indication and then continue to turn the OBS until the needle centers. This will tell you the radial from the VOR you are located on. See the below figure. In this example if I had kept just the Centex VOR active I could rapidly tell that I was on the 155 degree radial of CWK and my position is somewhere along this line on the sectional. If I needed to refine my position, it is an easy matter to find another close by VOR, in this case SAT; just Tune SAT, verify its ID, and again center the CDI needle with a From indication. The intersection of these two radials (155 and 066 in this case) provides you with an unambiguous location of your position.



Some final words: While I've written this from a student pilot's perspective, the tips and skills are those that any pilot should have and adhere to. Losing positional awareness is both unsafe and can allow you to get into airspace without a clearance as well as causing one to become lost. Practice of these skills will enable you to be a more confident and safer pilot.